

Summary of the U.S. Census Bureau's 2015 State-Level Population Estimate for Massachusetts

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On December 22, 2015, the U.S. Census Bureau released population and components of change estimates for the nation, states, and Puerto Rico for July 1, 2015. According to the new release, the Massachusetts population increased by an estimated 39,298 persons from July 1, 2014 to July 1, 2015 to a new total of 6,794,422, making it the 15th most populous state in the U.S., down from the 14th most populous in 2014. This 0.6% annual increase puts Massachusetts' growth at almost three times that of the Northeast average of 0.2% and ranks it as the fastest growing state in the Northeast region for the fifth consecutive year since the 2010 Census. At the national level, Massachusetts ranked 25th for annual percentage growth – up from 26th last year – and in terms of numerical growth, Massachusetts ranked 16th in the 2014-2015 period – up from 17th last year. Since the last Census in April of 2010, the Massachusetts population has increased by 246,605 persons cumulatively, or 3.8%, compared to a 1.7% cumulative increase for the Northeast region and a 4.1% cumulative increase for the U.S. as a whole. Table 1 below shows the numerical growth and rankings for the United States, U.S. regions, and the Northeast states including Massachusetts, for the period April 1, 2010 through July 1, 2015. Table 2 shows this information in terms of percentage change.

Geographic Area	April 1, 2010 Estimates Base	Population Estimate (as of July 1)						Single Year Population Change July 1, 2014 to July 1, 2015	Cumulative Population Change April 1, 2010 to July 1, 2015.	National Ranking by Population Size 2015	National Ranking by Numeric Population Change 2014-2015
		2010	2011	2012	2013	2014	2015				
United States	308,758,105	309,346,863	311,718,857	314,102,623	316,427,395	318,907,401	321,418,820	2,511,419	12,660,715	(X)	(X)
Northeast	55,318,348	55,387,174	55,638,038	55,835,056	56,019,353	56,171,281	56,283,891	112,610	965,543	4	4
Midwest	66,929,897	66,977,505	67,156,488	67,340,231	67,565,788	67,762,069	67,907,403	145,334	977,506	3	3
South	114,562,953	114,862,858	116,080,267	117,331,340	118,487,418	119,795,010	121,182,847	1,387,837	6,619,894	1	1
West	71,946,907	72,119,326	72,844,064	73,595,996	74,354,836	75,179,041	76,044,679	865,638	4,097,772	2	2
Connecticut	3,574,118	3,579,717	3,589,759	3,593,541	3,597,168	3,594,762	3,590,886	-3,876	16,768	29	49
Maine	1,328,361	1,327,695	1,328,257	1,328,888	1,328,778	1,330,256	1,329,328	-928	967	42	47
Massachusetts	6,547,817	6,565,036	6,611,797	6,657,780	6,708,810	6,755,124	6,794,422	39,298	246,605	15	16
New Hampshire	1,316,466	1,316,708	1,318,344	1,321,393	1,322,660	1,327,996	1,330,608	2,612	14,142	41	41
New Jersey	8,791,936	8,803,881	8,842,934	8,874,893	8,907,384	8,938,844	8,958,013	19,169	166,077	11	24
New York	19,378,087	19,402,920	19,523,202	19,606,981	19,691,032	19,748,858	19,795,791	46,933	417,704	4	15
Pennsylvania	12,702,887	12,712,014	12,745,202	12,772,789	12,783,536	12,793,767	12,802,503	8,736	99,616	6	38
Rhode Island	1,052,931	1,053,219	1,051,856	1,052,393	1,052,856	1,054,907	1,056,298	1,391	3,367	43	43
Vermont	625,745	625,984	626,687	626,398	627,129	626,767	626,042	-725	297	50	46

UMass Donahue Institute. Source data: Annual Estimates of the Resident Population for the United States, Regions, States, and Puerto Rico: April 1, 2010 to July 1, 2015 (NST-EST2015-01) and NST-EST2015-03. U.S. Census Bureau, Population Division. December 22, 2015.



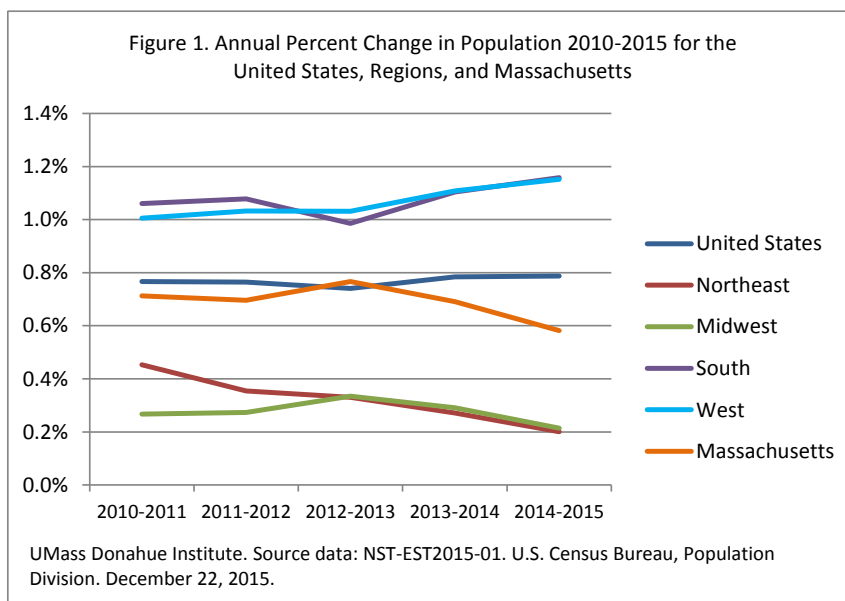
Geographic Area	April 1, 2010 to July 1, 2010	July 1 to July 1					National Ranking of Single Year % Change 2014-2015	Cumulative % Change April 1, 2010 to July 1, 2015.	National Ranking of Cumulative % Change
		2010-2011	2011-2012	2012-2013	2013-2014	2014-2015			
United States	0.2%	0.8%	0.8%	0.7%	0.8%	0.8%	(X)	4.1%	(X)
Northeast	0.1%	0.5%	0.4%	0.3%	0.3%	0.2%	4	1.7%	3
Midwest	0.1%	0.3%	0.3%	0.3%	0.3%	0.2%	3	1.5%	4
South	0.3%	1.1%	1.1%	1.0%	1.1%	1.2%	1	5.8%	1
West	0.2%	1.0%	1.0%	1.0%	1.1%	1.2%	2	5.7%	2
Connecticut	0.2%	0.3%	0.1%	0.1%	-0.1%	-0.1%	48	0.5%	45
Maine	-0.1%	0.0%	0.0%	0.0%	0.1%	-0.1%	47	0.1%	49
Massachusetts	0.3%	0.7%	0.7%	0.8%	0.7%	0.6%	25	3.8%	27
New Hampshire	0.0%	0.1%	0.2%	0.1%	0.4%	0.2%	39	1.1%	41
New Jersey	0.1%	0.4%	0.4%	0.4%	0.4%	0.2%	37	1.9%	36
New York	0.1%	0.6%	0.4%	0.4%	0.3%	0.2%	36	2.2%	31
Pennsylvania	0.1%	0.3%	0.2%	0.1%	0.1%	0.1%	43	0.8%	43
Rhode Island	0.0%	-0.1%	0.1%	0.0%	0.2%	0.1%	42	0.3%	47
Vermont	0.0%	0.1%	0.0%	0.1%	-0.1%	-0.1%	49	0.0%	50

UMass Donahue Institute. Source data: Annual Estimates of the Resident Population for the United States, Regions, States, and Puerto Rico: April 1, 2010 to July 1, 2015 (NST-EST2015-01), NST-EST2015-02, and NST-EST2015-03. U.S. Census Bureau, Population Division. December 22, 2015.

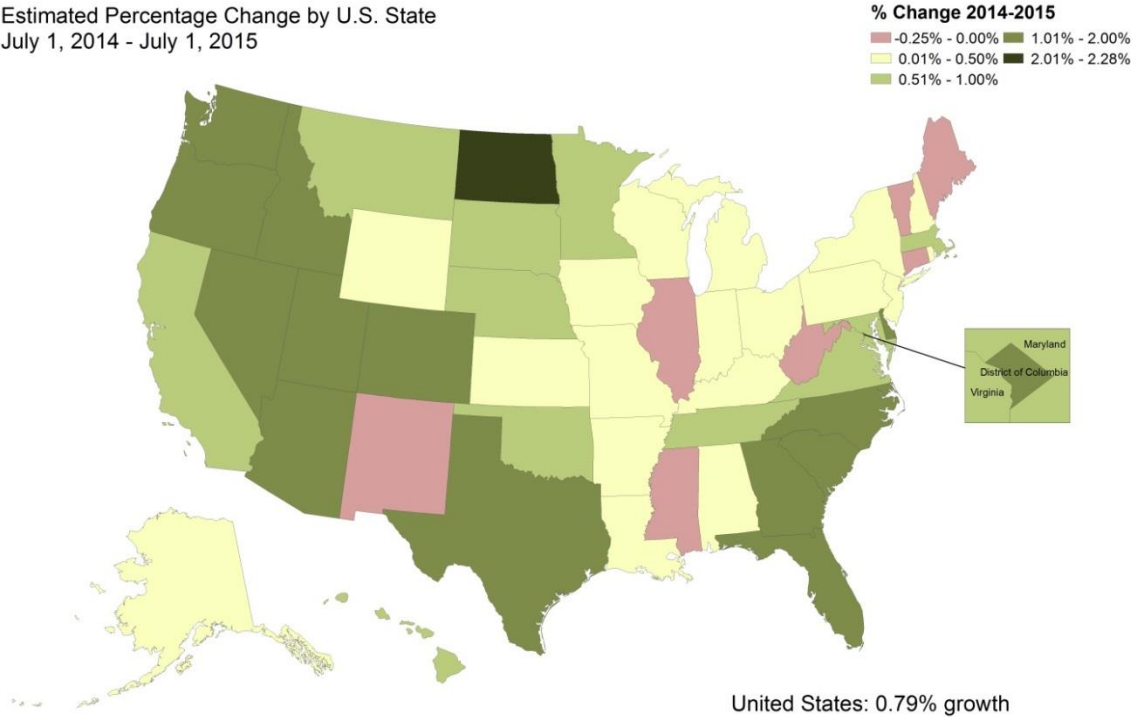
Regional Comparisons

Massachusetts' cumulative population increase of 3.8% is now approaching the national average of 4.1%, while its single year percentage of 0.6% lags behind the U.S. average of 0.8% by just a small margin. While its annual percent growth has started to slow, falling below the U.S. average again in recent years, Massachusetts continues to increase in population at a rate almost three times that of the Northeast and Midwest regions, which each grew by just 0.2% from 2014 to 2015. The Southern and Western regions meanwhile continue to lead the U.S. in terms of percentage growth, at 1.2% each over the last year (Figure 1).

The map below clearly demonstrates that Massachusetts stands apart from the rest of the Northeastern and Midwestern states in terms of percentage growth from 2014 to 2015, and even surpasses some states in the South and West.



Estimated Percentage Change by U.S. State
July 1, 2014 - July 1, 2015



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Source: U.S. Census Bureau, Populations Division.
Table NST-EST2015-01: Annual Estimates of the Resident Population for the United States, Regions, States, and Puerto Rico: April 1, 2010 to July 1, 2015.
Release date: December 22, 2015.

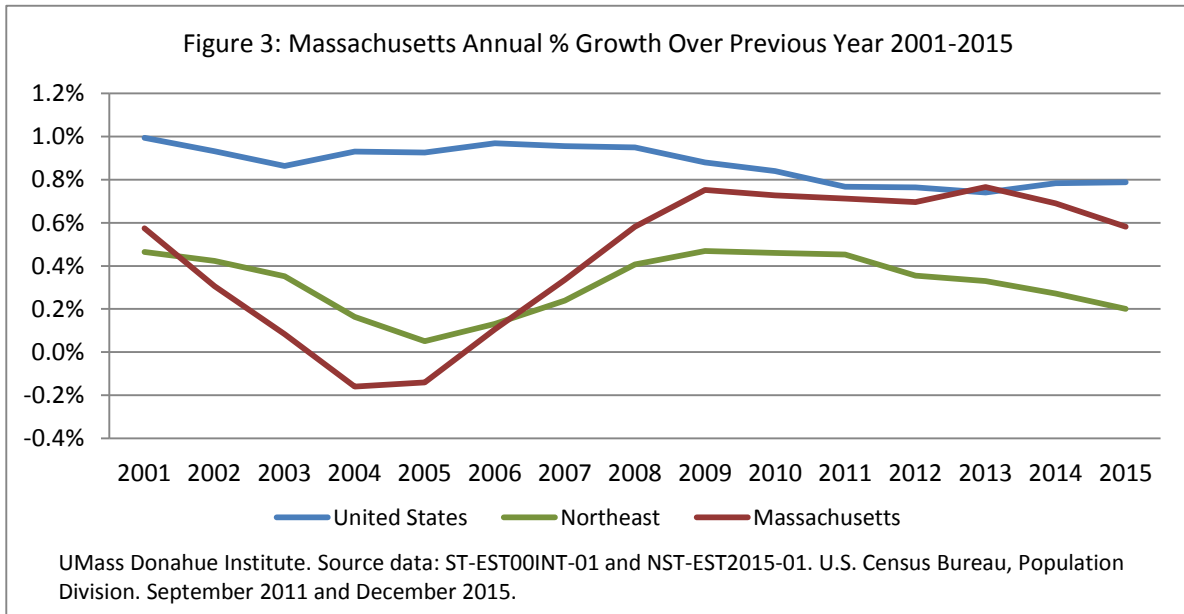


Long Term Trend

In the last decade, from July 1, 2000 to July 1, 2010, the average growth for Massachusetts was about 0.3% per year, with an average population increase of just 19,245 per year. From 2001 to 2004, Massachusetts' growth rates, along with the Northeast rates, were actually declining, and only turned around after 2005, due in part to a reversal of domestic out-migration. Starting in 2007, the Massachusetts annual growth rate overtook the Northeast rate, at 0.5% for Massachusetts compared to 0.3% for the Northeast for that year, and by an increasing percentage thereafter. Since the 2010 Census, Massachusetts has increased its population by an average of 46,972 persons, or 0.7%, per year.

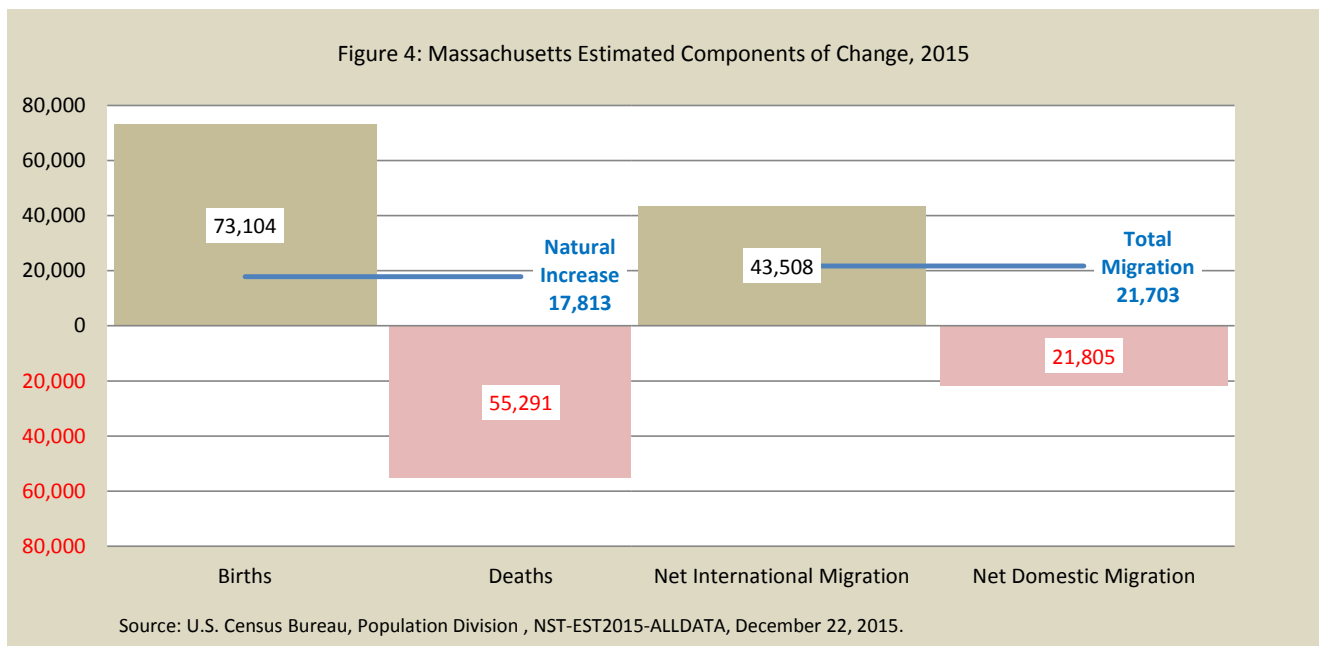
While the population change in Massachusetts from 2014 to 2015 represents a slight deceleration in the growth rate experienced by Massachusetts since 2010, it is still growing more than twice as rapidly as it did on average in the last decade. Figure 3 shows the percentage growth for Massachusetts as compared to the U.S. and Northeast region averages from 2001 through 2014.





Components of Change

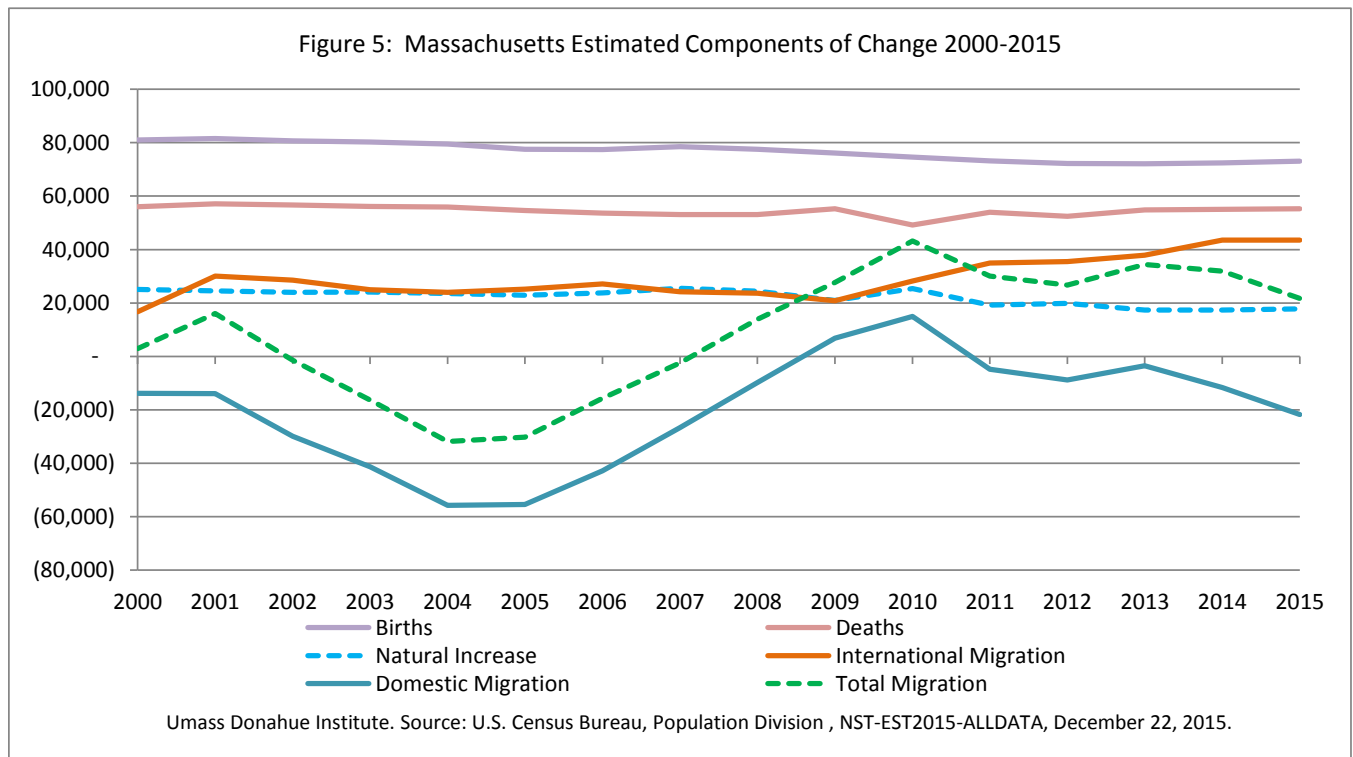
The U.S. Census Bureau produces revised population estimates each year by adding updated *components of change* to the Census 2010 base. These components include both the number of **births** and **deaths**, which together constitute the **natural increase**. They also include **net domestic migration** (migration to and from other states within the U.S.) and **net international migration** (migration to and from other countries) which sum to the **total net migration**. A fifth component, the group quarters population, is factored into the estimates base for the previous year, but is not broken out as a separate number in the Bureau’s published release.



According to the U.S. Census estimates, from July 1, 2014 to July 1, 2015 Massachusetts experienced 73,104 births and 55,291 deaths, for a net natural increase of 17,813. At the same time, Massachusetts experienced a net outflow of 21,805 persons to other states in the U.S. and a net inflow of 43,508 persons from other countries, for total net migration of 21,703 persons. Figure 4 displays the extent to which a higher number of births offsets the number of deaths and how positive international migration offsets negative net domestic migration to sum to positive population change in Massachusetts during this period.

Components of Change: Trends 2000-2015

Massachusetts has long experienced, to varying degrees, component patterns similar to those seen above. Figure 5 below shows the trends in these components from 2000 through 2015. A greater number of births over deaths and positive international migration offsetting negative domestic migration have all contributed to an overall population increase this decade and last. Domestic out-migration from Massachusetts peaked in the middle of the last decade with an estimated net outflow of 55,077 persons leaving Massachusetts for other parts of the United States in 2005. This outflow was reduced significantly in 2007 (by 37%) and again in 2008 (by 63%), and then finally reversed to a positive in-flow in 2009, with an estimated 6,843 net persons moving into Massachusetts from other U.S. states. In the years since 2010, domestic migration reverted to a negative value again, but the outflow has been moderate compared to the peak outflow over the last decade. Births and deaths throughout the 2000-2015 period have been much less variable from year to year than migration, with births showing a slight overall decline through the years and deaths continuing at about the same level over the course of the time series.



Components of Change: Regional and State Comparisons

An examination of the components-of-change data begins to answer the question of why some states or regions are racing ahead in growth while others lag behind. Massachusetts, for instance, is growing almost three times as fast as the Northeast region on average, and faster than any other Northeast state. The estimated components data suggest that, while Massachusetts shows a reasonable rate of natural increase compared to other Northeastern states, its total positive migration – specifically the large number of international in-migrants offsetting a relatively small number of domestic out-migrants – explains why the state leads the region in growth, as shown in Table 3 below.

Geography	Vital Events			Migration		
	Births	Deaths	Natural Increase	International Migration	Domestic Migration	Total Net Migration
United States	3,985,924	2,625,033	1,360,891	1,150,528	X	1,150,528
Northeast Region	635,486	479,649	155,837	298,875	(324,078)	(25,203)
Midwest Region	835,105	589,347	245,758	151,417	(238,428)	(87,011)
South Region	1,534,496	1,023,601	510,895	417,245	444,240	861,485
West Region	980,837	532,436	448,401	282,991	118,266	401,257
Connecticut	36,225	29,594	6,631	18,769	(27,619)	(8,850)
Maine	12,837	13,287	(450)	1,528	(1,718)	(190)
Massachusetts	73,104	55,291	17,813	43,508	(21,805)	21,703
New Hampshire	12,562	10,980	1,582	2,244	(1,167)	1,077
New Jersey	103,006	72,065	30,941	57,083	(65,254)	(8,171)
New York	238,831	154,974	83,857	134,160	(157,992)	(23,832)
Pennsylvania	141,956	128,630	13,326	35,942	(41,607)	(5,665)
Rhode Island	10,984	9,533	1,451	4,727	(4,693)	34
Vermont	5,981	5,295	686	914	(2,223)	(1,309)

UMass Donahue Institute. Source U.S. Census Bureau Population Division NST_EST2015_ALLDATA. Release Date December 22, 2015.

Regional and State Comparisons by Rate

An easier way to compare this data over different geographies is to first convert it to a rate –so that larger and smaller geographies can be evaluated together. Table 4 below shows the rate, per 1,000 persons, of each change component for the United States, U.S. Regions, and the Northeast States, including Massachusetts.

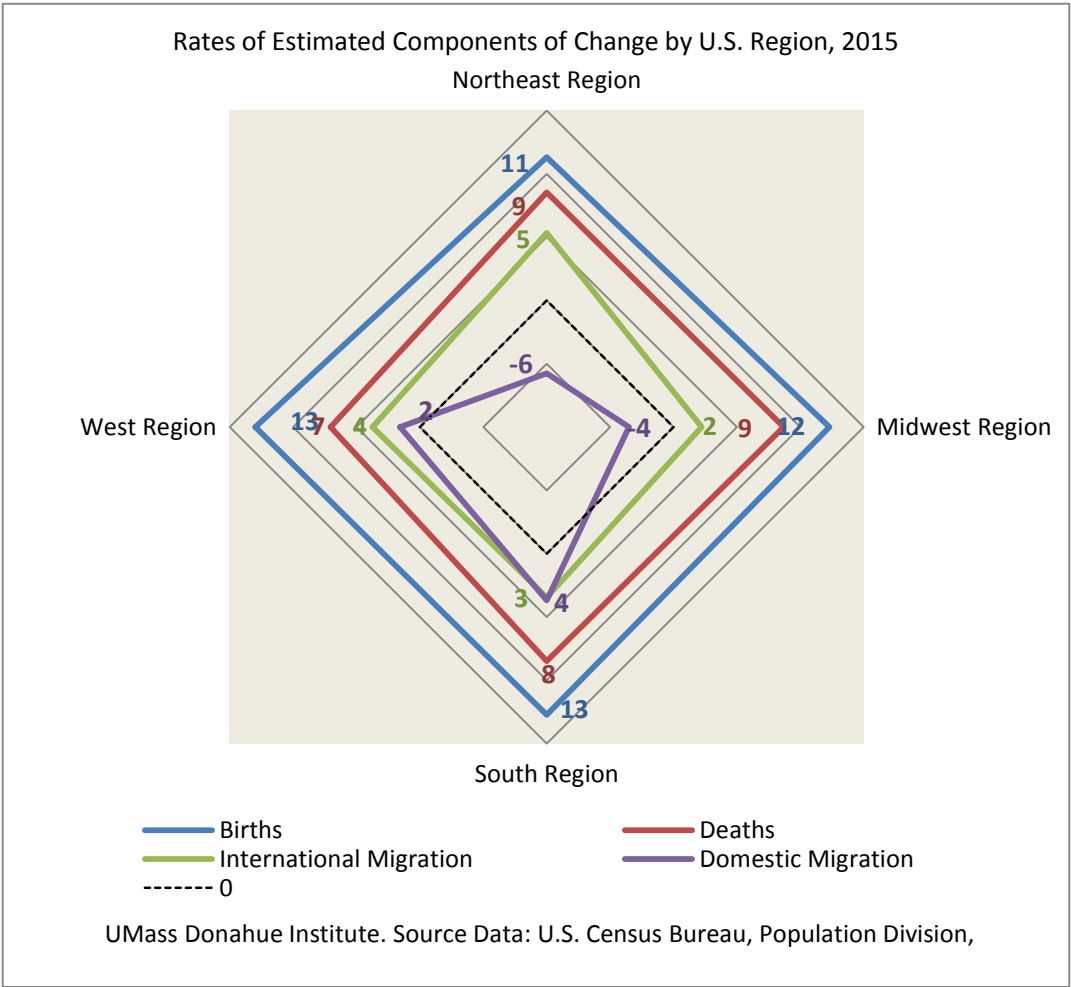
Geography	Vital Events			Migration		
	Births	Deaths	Natural Increase	International Migration	Domestic Migration	Total Net Migration
United States	12.4	8.2	4.3	3.6	0.0	3.6
Northeast Region	11.3	8.5	2.8	5.3	(5.8)	(0.4)
Midwest Region	12.3	8.7	3.6	2.2	(3.5)	(1.3)
South Region	12.7	8.5	4.2	3.5	3.7	7.1
West Region	13.0	7.0	5.9	3.7	1.6	5.3
Connecticut	10.1	8.2	1.8	5.2	(7.7)	(2.5)
Maine	9.7	10.0	(0.3)	1.1	(1.3)	(0.1)
Massachusetts	10.8	8.2	2.6	6.4	(3.2)	3.2
New Hampshire	9.5	8.3	1.2	1.7	(0.9)	0.8
New Jersey	11.5	8.1	3.5	6.4	(7.3)	(0.9)
New York	12.1	7.8	4.2	6.8	(8.0)	(1.2)
Pennsylvania	11.1	10.1	1.0	2.8	(3.3)	(0.4)
Rhode Island	10.4	9.0	1.4	4.5	(4.4)	0.0
Vermont	9.5	8.5	1.1	1.5	(3.5)	(2.1)

UMass Donahue Institute. Source U.S. Census Bureau Population Division NST_EST2015_ALLDATA. Release Date December 22, 2015. Rates per 1,000 average population.

These estimated component rates indicate that in Massachusetts, births are occurring at a lower rate (10.8) than in the United States as a whole (12.4) as well as in all of the U.S. regions, on average. Deaths in Massachusetts are occurring at a lower rate (8.2) than other regions of the U.S. except the West (7.0), but are on par with the U.S. average. Taken together, these vital events lead to a natural increase rate (2.6) that is below that of the U.S. as a whole (4.3) and all of its regions, though very close to the Northeast average of 2.8. Note that all other states in the Northeast except for New Jersey and New York are showing even smaller rates of natural increase.

Within the migration component, we see that the Northeast and Midwest regions experience net domestic out-migration (-5.8 and -3.5, respectively) while the Southern and Western regions have positive domestic migration (3.7 and 1.6). The domestic migration rate of -3.2 in Massachusetts is less than the Northeast and Midwest regional averages (-5.8 and -3.5), but still indicates net domestic outmigration to Southern and Western states. On the other hand, the international migration rate of 6.4 for Massachusetts is higher than the U.S. as a whole (3.6) as well as all U.S. regional averages. As a result, Massachusetts total migration sums to a positive rate of 3.2 in-migrants per 1,000 population - higher than the other Northeast states as well as the Midwest regional average.

Figure 6 demonstrates the magnitude of each of the components of population change, graphing component rates by U.S. region. Births represent the component with the greatest influence on population change, and are more heavily weighted to the West and South. Deaths are the second most influential component and are most prominent in the Midwest and Northeast. International migration is heavily weighted to the Northeast, while domestic migration adds to the West and especially to the South, with losses in the Midwest and Northeast. These current rates echo the component trends of the last decade. From 2000 to 2010, two areas of the United States - the South and the West - showed positive internal migration for the whole decade, meaning that a net influx of persons from other states in the Northeast and Midwest added to their population over those years.



Additional Information and estimates data can be found on the U.S. Census Bureau’s website at <http://www.census.gov/popest/data/index.html>.

Additional UMass Donahue Institute Massachusetts summaries of U.S. Census Bureau releases can be accessed at <http://www.massbenchmarks.org/statedata/news.htm> and appear in chronological order.